



MAR 17 2022

Attachment I – Justification for Trade Secret

1. To your knowledge, has the identity of the ingredient, its concentration, or both been publicly disclosed: MONTANA BOARD OF OIL & GAS CONSERVATION • BILLINGS

- i. Pursuant to any federal, state, or local law or regulation? The identity of the ingredients, their combinations, and their use in a surfactant and an antiscalant product has not been publicly disclosed by Calfrac or, to Calfrac's knowledge, anyone else, pursuant to any federal, state, or local law or regulation.
- ii. In professional trade publications? The identity of the ingredients and their collective use in a surfactant and an antiscalant product has not been publicly disclosed by Calfrac or, to Calfrac's knowledge, anyone else, in professional trade publications
- iii. Through any other media or publications available to the public or your competitors? In order to make the above determinations, Calfrac used the CAS numbers of the substances in this product to search the FracFocus database, and reviewed multiple entries per page of results. As previously mentioned, Calfrac found all of the CAS numbers associated with various product usages. Calfrac reviewed compositions of other known friction reducers, and found that the products contain the hazardous components for which trade secret protection is sought. However, their use in CALSURF 9400 & DYNASCALE 3515 or with this combination of ingredients has not been identified. Calfrac then performed a combined literature search using the CAS numbers and the terms "surfactant" and "antiscalant". Even though documents existed with the combination search terms for the hazardous trade secret components, there was no public document that identified "surfactant" and "antiscalant" with the CAS numbers for which confidentiality is sought. Calfrac was not able to locate any documentation that mentions all ingredients together for any purpose.

2. To what extent is the identity of the ingredient (including its use in the additive) known within the company and what steps have you taken to safeguard the information? Please describe in detail how this information is housed in your company and what steps your employees, officers, agents, and directors take to prevent disclosure of the information to parties outside of your company.

- Calfrac has in place numerous safeguards and controls to protect the confidentiality of its product formulations including, but not limited to, safe storage locations for information on proprietary products; marking all hard copies of records containing proprietary Chemical Identity information as confidential and trade secret; limiting access to proprietary Chemical Identity information internally on a need-to-know basis only; and requiring confidentiality agreements when disclosing the proprietary Chemical Identity information or product samples to third-parties. Electronic copies of records containing proprietary Chemical Identity information are protected and maintained on a secure internal network. Employees provided with access to proprietary Chemical Identity information are informed of the value and

importance of protecting it. In addition to the Confidential Information and Inventions Agreement signed by all employees, employees with access or exposure to proprietary Chemical Identity information are required to sign an acknowledgement of confidentiality.

3. *Has any other regulatory body (federal, state, tribal, or local) determined the ingredient identity (including its use in the additive) is not entitled to protection from public disclosure as a trade secret or confidential commercial information? If so, provide a copy of the agency's determination, along with any explanation as to why the Commission should not make a similar determination. Provide any other information concerning prior requests for confidentiality and/or regulatory body determinations you believe is relevant to the Commission's determination.*
- No regulatory body (federal, state, tribal, or local) has determined that Calfrac's trade secret or confidential information is not protected from public disclosure. These products have been used throughout Calfrac's United States operations and have been provided protection from disclosure throughout those jurisdictions.
4. *How is the identity of the ingredient commercially valuable to the company? In answering this question, please describe why the use of the ingredient in the type of additive is not common knowledge in the industry, including any novel or unusual aspects of the chemical or the use of the chemical in this application.*
- Calfrac has expended a significant amount of effort and money to develop the proprietary product and it is the result of years of extensive research, development testing and oilfield application to customers' wells. Developing products requires an understanding of the geology, the physics of temperatures and pressures and the chemistry of the stimulation fluids. Calfrac devotes significant research and development resources to understand geology, physics of temperatures and pressures, fluid systems for unique geological formations and to develop new and innovative products to more effectively stimulate reservoirs to increase production of oil and gas.
  - For example, CALSURF 9400 & DYNASCALE 3515 contain components that would not normally be considered or expected as part of a commercial surfactant or antiscalant formulation. However, the product has proven to be highly successful over many years of commercial use, providing Calfrac with superior operations and technical differentiation. Hence Calfrac feels that dissemination of this commercially valuable knowhow would be highly detrimental to its interest, therefore an application for trade secret protection is requested.
  - If the Chemical Identities of this product were to be available to our competitors or customers, then they could replicate our products and Calfrac would lose its competitive advantage in Montana and throughout the world gained through considerable expense and research.

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5. *Describe the ease or difficulty with which the formula for the additive product could be determined from public disclosure of the ingredient identity. Specifically, explain why the use of the "systems approach" format would not adequately protect your proprietary interest.*
- If the proprietary Chemical Identity information were disclosed, then it would not be difficult for Calfrac's competitors to "reverse engineer" and determine the proprietary formula of the product.
  - There are a limited number of active ingredients and the revealing proprietary Chemical Identity information, even when presented in a systems approach format, would provide others with the active ingredients in the products allowing others to engineer our product for sale and/or use, and thereby, undermining Calfrac competitive advantage. Further, a systems approach may undermine our ability to patent such formulas.

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Attachment II

**REDACTED** Chemical Information for CALSURF 9400 & DYNASCALE 3515

CALSURF 9400		
COMPONENT NAME	CAS#	CONCENTRATION
Methanol	67-56-1	30%
Organic Acid Salt	Proprietary	Proprietary
Water	7732-18-5	40%

DYNASCALE 3515		
COMPONENT NAME	CAS#	CONCENTRATION
Methanol	67-56-1	45%
Ethoxylated Alcohols	Proprietary	Proprietary
Water	7732-18-5	40%

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